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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,881	11/21/2003	Paul Matthijs	920522-95146	2916

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EXAMINER	
SHERMAN, STEPHEN G	
ART UNIT	PAPER NUMBER
2629	

NOTIFICATION DATE	DELIVERY MODE
06/25/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent-ch@btlaw.com

Office Action Summary	Application No.	Applicant(s)	
	10/719,881	MATTHIJS ET AL.	
	Examiner	Art Unit	
	STEPHEN G. SHERMAN	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 May 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 December 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 28 May 2008 has been entered. Claims 16-32 are pending.

Response to Arguments

2. Applicant's arguments with respect to the art rejection of claims 16-32 have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant's arguments filed with respect to the 112, 2nd paragraph rejection of claims 16-32 have been fully considered but they are not persuasive.

On page 6 of the response the applicant agues that the amendment made to the claims now makes it clear that there are cells as a physical part fo the screen and pixels belonging to a copy of the image, and that the amendment clarifies what the applicant is

intending to claim. The examiner respectfully disagrees, and as explained in the rejection found below, there are still clarity issues in the claims.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 16-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The newly amended dependent claims now all similarly state "adapting the image content of the defective cells or of cells in the neighborhood of the defective cells so as to indicate, emphasize or warn for the presence in a copy of said image of pixels corresponding to said defective cells". This limitation is unclear what the applicant is intending to claim. According to the claim, the image content of the defective cells, which are a physical part of the display, are adapted to warn for the presence in the copy of said image of pixels corresponding to said defective cells. The applicant has stated in their response that it is their intention to claim of indicating, emphasizing or warning, in a copy of an image displayed, for the presence of pixels corresponding to defective cells, however, the claim states that the image content of the defective cells, i.e. the display, are adapted, meaning that the pixels in the copy of the image are not adapted. Therefore, it is unclear whether the applicant is trying to claim adapting the

image content of the display of the copy of the image. Further, due to the amendment, the claim has been amended to end "to indicate, emphasize or warn for the presence in a copy of said image of pixels corresponding to said defective cells" which is unclear, because the examiner does not know, without commas, whether the claim should read " to indicate, emphasize or warn for the presence, (in a copy of said image of pixels corresponding to said defective cells)" which would make the claim more indefinite, or whether the claim should read "to indicate, emphasize or warn for the presence, (in a copy of said image), of pixels corresponding to said defective cells".

For, the purpose of examination the examiner will assume that it does not matter whether the image content in the copy of the image is adapted at all as long as the image content of the physical display is adapted, and that this is done to indicate, emphasize or warn for the presence of pixels corresponding to said defective cells.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 16, 22, 25 and 32 and are rejected under 35 U.S.C. 102(b) as being anticipated by Hoelen et al. (US 2001/0035853).

Regarding claim 16, Hoelen et al. disclose a method for avoiding misinterpretation of an image displayed on a matrix display due to defective cells in the matrix display, the method comprising:

obtaining information on the presence and the location of the defective cells in said matrix display (Paragraph [0040] explains that appropriate measures are taken to compensate for the failure of an LED, i.e. a defect. Thus in order to counteract the "defect", the presence and location of the failed LED is obtained. See Figure 3A, which shows that the LEDs are cells in a matrix display. See paragraph [0059].), and on the basis of this information,

modulating the operation of said matrix display so as to indicate, emphasize or warn for the presence of said defective cells on the actual display of said image (Paragraph [0040] explains that when an LED fails, i.e. is defective, that the luminous flux of the LEDs nearby the defective pixel is increased to compensate, .e. the display is modulated to emphasize the presence of the defective cell since the increase in brightness of the surrounding LEDs will "emphasize" the failure.), **or**

adapting the image content of the defective pixels or of pixels in the neighborhood of the defective cells so as to indicate, emphasize or warn for the presence in a copy of said image of pixels corresponding to said defective pixels.

Regarding claim 22, Hoelen et al. disclose a method according to claim 16, wherein the information on the presence of defective pixels is obtained by means of an image capturing device (Paragraph [0060] explains that there are sensors 110,110'

which measure the optical properties of the light, and therefore are "image capturing" devices.).

Regarding claim 25, this claim is rejected under the same rationale as claim 16.

Regarding claim 32, this claim is rejected under the same rationale as claim 16.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 17-18, 23-24, 26-27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoelen et al. (US 2001/0035853) in view of Aida (JP 59-126967).

Regarding claim 17, Hoelen et al. disclose a method according to claim 16.

Hoelen et al. fail to teach wherein the information is obtained from data previously stored in a memory device.

Aida discloses wherein information is obtained from data previously stored in a memory device (Figure 3 shows that information is stored regarding defective pixels in the storage section 4, i.e. memory device.).

Therefore, it would have been obvious to "one of ordinary skill" at the time the invention was made to make the information regarding the LEDs, i.e. cells, which are defective as taught by Hoelen et al. stored in a memory as taught by Aida such that when the images are displayed the defective pixel locations are known in order to properly alter the driving of the surrounding pixels in an easily obtainable manner.

Regarding claim 18, Hoelen et al. and Aida disclose a method according to claim 17.

Aida also discloses the method comprising, while displaying the image on the matrix display device, supplying information on defective pixels to a user, based on the stored data (Figure 3 shows that while the light, i.e. image, is on the matrix display DUT that information form the memory 4 is supplied to the display section 14 for supplying information on the defective pixels.).

Regarding claim 23, Hoelen et al. disclose a method for avoiding misinterpretation of an image displayed on a matrix display due to defective cells in the matrix display, the method comprising:

obtaining information on the presence and the location of the defective cells in said matrix display (Paragraph [0040] explains that appropriate measures are taken to compensate for the failure of an LED, i.e. a defect. Thus in order to counteract the "defect", the presence and location of the failed LED is obtained. See Figure 3A, which shows that the LEDs are cells in a matrix display. See paragraph [0059].), and on the basis of this information,

modulating the operation of said matrix display so as to indicate, emphasize or warn for the presence of said defective cells on the actual display of said image (Paragraph [0040] explains that when an LED fails, i.e. is defective, that the luminous flux of the LEDs nearby the defective pixel is increased to compensate, .e. the display is modulated to emphasize the presence of the defective cell since the increase in brightness of the surrounding LEDs will "emphasize" the failure.).

Hoelen et al. fails to teach of avoiding misinterpretation of a copy of an image displayed on a matrix display due to the defective cells in the matrix display by adapting the image content of the defective pixels or of pixels in the neighborhood of the defective cells so as to indicate, emphasize or warn for the presence in the copy of said image of pixels corresponding to said defective pixels.

Aida discloses a method of adapting the image content of the defective pixels or of pixels in the neighborhood of defective cells so as to indicate, emphasize or warn for

the presence in the copy of said image of pixels corresponding to said defective pixels (Figure 3 shows that the LED matrix display LUT is caused to emit light, i.e. display an "image", which is measured, and then the location of defective cells of the LED matrix display is displayed in a copy of the image of the matrix display.).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use a pixel checking method as taught by Aida in the method taught by Hoelen et al., such that the display can be accurately checked for the defective LEDs in order to allow for the user to visually see where the defective cells are located such that the LEDs can be replaced or fixed.

Regarding claim 24, Hoelen et al. and Aida discloses the method according to claim 23.

Aida also discloses wherein, the copy is a hard copy or an electronic copy (Figure 3 shows that the "copy" is displayed on the display section 14, meaning that it is an electronic copy.).

Regarding claim 26, this claim is rejected under the same rationale as claim 17.

Regarding claim 27, this claim is rejected under the same rationale as claim 18.

Regarding claim 31, this claim is rejected under the same rationale as claim 23.

11. Claims 19 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoelen et al. (US 2001/0035853) in view of Murakami (US 5,982,946).

Regarding claim 19, Hoelen et al. disclose a method according to claim 16.

Hoelen et al. fail to teach wherein, indicating, emphasizing or warning for the presence of at least one defective cell comprises visually marking the at least one defective cell on said matrix display device.

Murakami discloses wherein, indicating, emphasizing or warning for the presence of at least one defective cell comprises visually marking the at least one defective cell on a matrix display device (Figure 5 shows that the defective pixels DP are marked on the display.).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the teachings of marking the defective pixel on the screen as taught by Murakami in the method taught by Hoelen in order to all the user to be aware that a pixel is defective and needs to be replaced/fixed.

Regarding claim 28, this claim is rejected under the same rationale as claim 19.

12. Claims 20-21 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoelen et al. (US 2001/0035853) in view of Johnson et al. (US 2004/0164939).

Regarding claim 20, Hoelen et al. disclose a method according to claim 16.

Hoelen et al. fail to teach that that the method further comprises showing the displayed image so that defective pixels are not located in a region of interest.

Johnson et al. disclose a method comprising showing a displayed image so that defective pixels are not located in a region of interest (Paragraph [0027] explains that if only part of the image is active that the active part avoids the weak diode, i.e. the image is shifted out of the region where the defect is.).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to show the displayed image so that the defective pixels would not be located in a region of interest as taught by Johnson et al. with the method taught by Hoelen et al. in order to allow for the proper viewing of the image without any defects in the image being viewable.

Regarding claim 21, Hoelen et al. disclose a method according to claim 16.

Hoelen et al. fail to teach that that the method further comprises shifting the displayed image so that a defective pixel is located in a flat image area.

Johnson et al. disclose a method comprising shifting a displayed image so that a defective pixel is located in a flat image area (Paragraph [0027] explains that if only part of the image is active that the active part avoids the weak diode, i.e. the image is shifted out of the region where the defect is, and since the display is flat, this will be a flat image area.).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to shift the displayed image so that the defective pixels would be located in a flat image area as taught by Johnson et al. with the method taught by Hoelen et al. in order to allow for the proper viewing of the image without any defects in the image being viewable.

Regarding claim 29, this claim is rejected under the same rationale as claim 20.

Regarding claim 30, this claim is rejected under the same rationale as claim 21.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN G. SHERMAN whose telephone number is (571)272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen G Sherman/
Examiner, Art Unit 2629

/Amr Awad/
Supervisory Patent Examiner, Art Unit 2629

17 June 2008